MANAGEMENT PLAN
FOR
AUSTIN BLUFFS
(UNIVERSITY PARK)
OPEN SPACE

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TOPS
TRAILS, OPEN SPACE & PARKS

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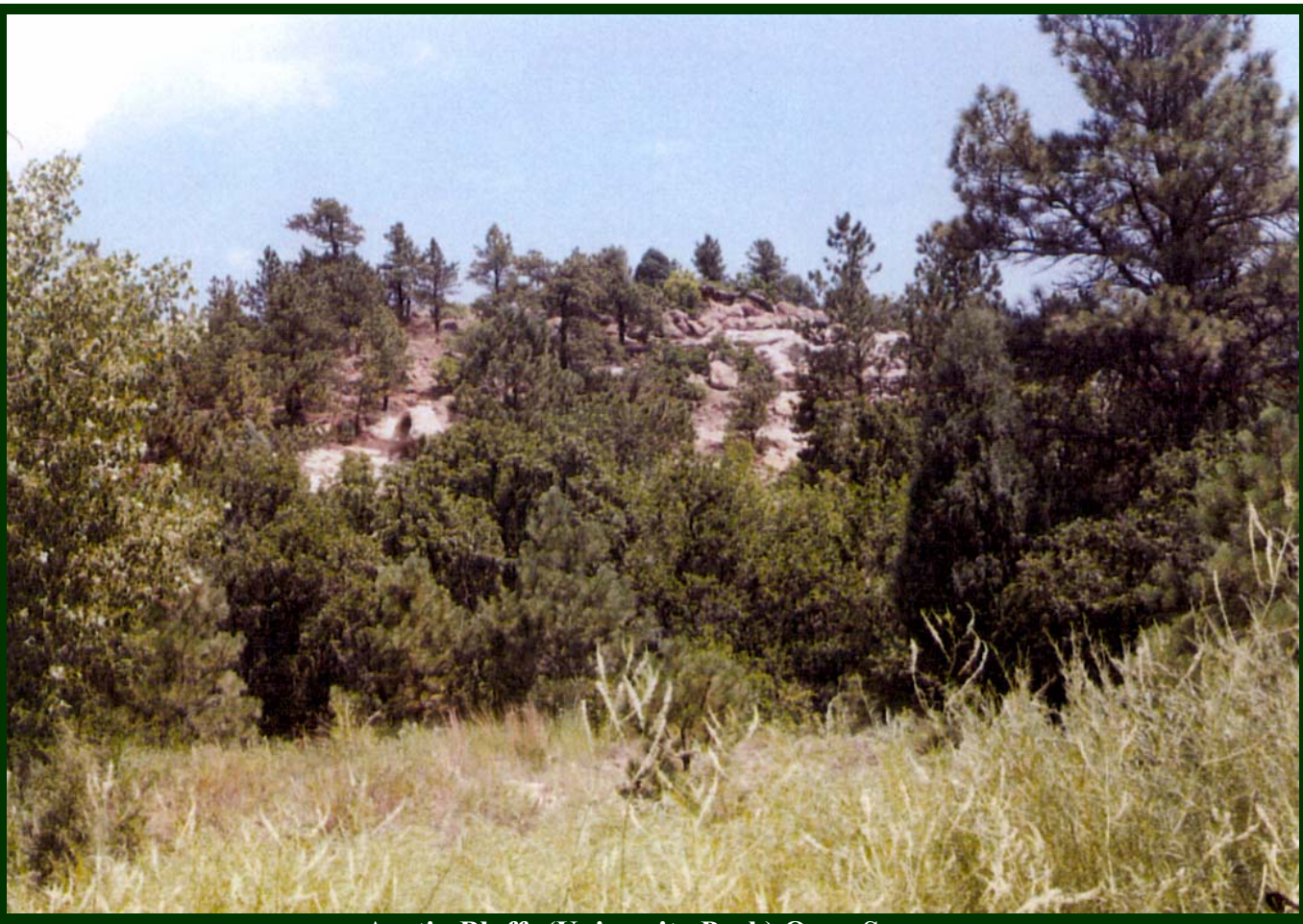
SUMMARY

The Austin Bluffs Open Space Master Plan was prepared in 1999 and this Management Plan is a companion plan to determine how to manage the open space as determined by the planning team. The Plan is based on the best available information and provides a comprehensive assessment of existing conditions. It is a guideline for the protection of the resources present on the open space.

The Plan provides broad goals for accomplishing and guiding future decisions about resource protection. Some of the goals, objectives and recommended actions are existing maintenance practices and others suggest a substantial change in the long-term direction and will require more specific site plans and design to implement.

This plan is to be used as a guide to action in the immediate future, as well as over the long term. As with any working document, it should be updated and revised regularly as needed.



Austin Bluffs (University Park) Open Space

INTRODUCTION

Location and Background

The Austin Bluffs (University Park) Open Space consists of two parcels, an 11.34-acre parcel and a 63.23-acre parcel located in the north central area of Colorado Springs north of Austin Bluffs Parkway, east of Nevada Avenue and west of Union Boulevard. These parcels are surrounded by open space, but residential development is located just beyond the hillsides to the north, east and south. The Austin Bluffs area will connect two regional open spaces, thereby consolidating 523 acres of open space. The Open Space will also allow for the regional completion of 163 miles of planned, interconnected trails.

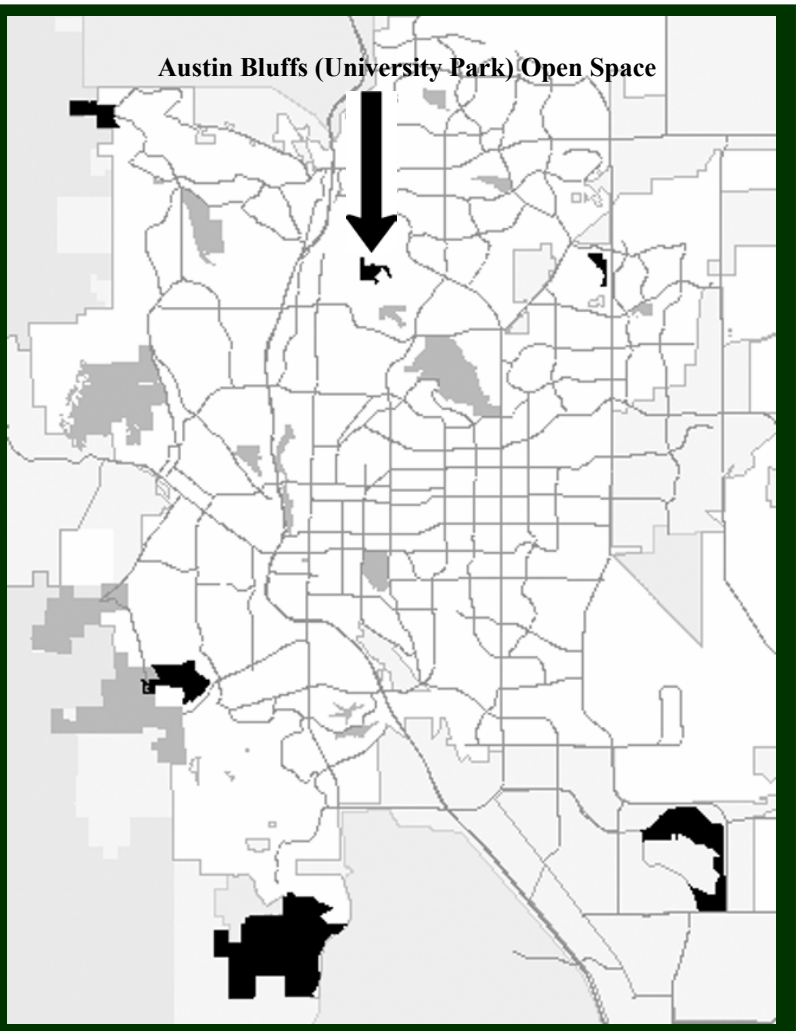


Figure 1. Regional Setting

Austin Bluffs Open Space has been rated in the highest quality category as 'unique' by the United States Forest Service in their Natural Features Inventory for its distinctive rock formations.

Purpose of the Plan

The purpose of the Austin Bluffs Open Space Management Plan is to provide specific management direction for natural, visual and passive recreational resources for the property. This Plan is based on the best available information and provides a foundation for long-term adaptive management of the property and its resources.

Vision Statement

Austin Bluffs Open Space represents a relatively uncommon community type of bluffs, mesas and valleys which support native vegetation communities and wildlife species. Most of the property is dominated by mixed shrub communities and tallgrass meadows. This area will provide opportunities to view unique rock formations, native vegetation and wildlife viewing in the heart of the city.

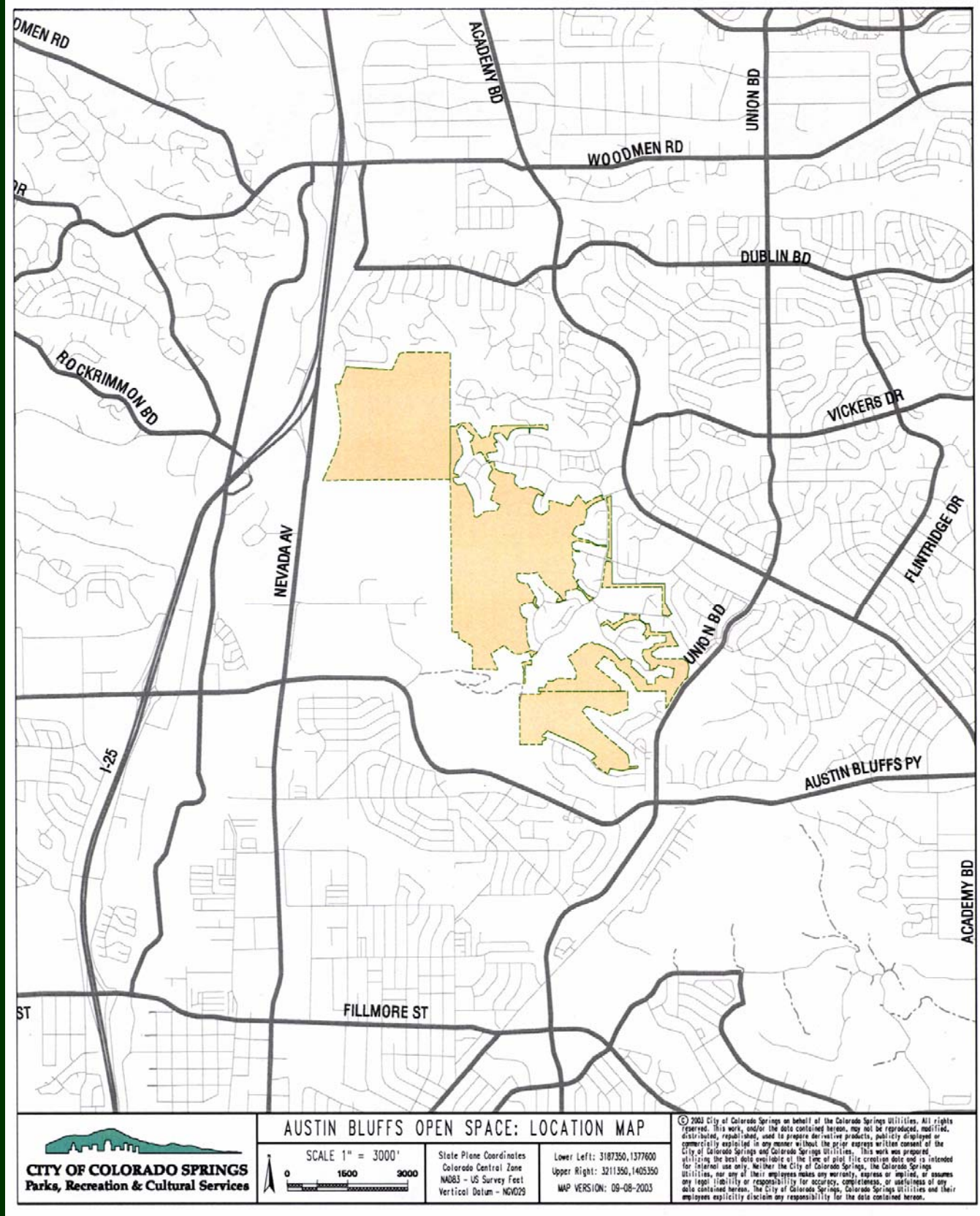


Figure 2. Local Setting Map

Goals

Preliminary goals for the Austin Bluffs Open Space provide a philosophical foundation on which to base the Plan. These broad ecological and community goals will provide the basis for management actions related to issues such as wildlife habitat preservation, social trail restoration, visitor use, passive recreation, environmental education and interpretation and visual resources.

Ecological Goals

1. Manage the property to enhance conservation efforts.
   - Protect and enhance native vegetation
   - Protect wildlife habitat and movement corridors

2. Promote the conservation and restoration of natural communities.
   - Provide educational and interpretive activities and programs where opportunities exist, primarily at trailheads
   - Provide passive recreation activities that do not degrade the conservation values of the property

Community Goals

1. Maintain the open space as a wildlife refuge, scenic resource, passive recreation resource and inter-city buffer.

2. Integrate the preservation, use and maintenance of this area with the surrounding open space in University Park, Pulpit Rock Park and Austin Bluffs Open Space.

3. Promote educational programs and trail opportunities where appropriate. Provide trailheads and ancillary facilities on the property.

Area Description

The Austin Bluffs Open Space lies in an area of Colorado Springs that is a bluffs and mesa land form. Fingers of the foothills extend into central and northern Colorado Springs forming bluffs and mesas. Ecologically, this natural area type mimics the foothills. The most common vegetative communities are foothills grasslands, scrub oak and mountain shrub. At one time, the bluffs and foothills formed one continuous natural area. Over time, development, particularly the construction of I-25, has separated the two, leaving the bluffs and mesas somewhat isolated natural areas. This isolation has given the bluffs and mesas greater importance as wildlife habitat than may otherwise have been the case, as animals other than birds have difficulty leaving the area. Wildlife in the bluffs is similar to that observed in the foothills, although species like black bears, mountain lions and bobcats that need extensive hunting grounds are much less frequent. By virtue of their location in the midst of the urbanized area, the bluffs and mesas have also taken on increased social and visual significance, since they are accessible to a large number of people and provide scenic relief from nearby development.

The location of the Austin Bluffs Open Space near a developed setting increases its importance as a scenic area and as a buffer. The City of Colorado Springs Planning Department ranked the area as having especially high visibility with a unique visual quality. An estimated 50,000 cars travel on Union Boulevard daily. The Open Space is visible from Union Boulevard, Austin Bluffs Parkway, Nevada Avenue and Interstate 25.

How to Use the Plan

The Austin Bluffs Open Space Management Plan is a working document, which should change and evolve with the property. As Colorado Springs implements recommended actions and as objectives and goals change, the Plan should reflect those changes. The Plan should be used to:

1. Monitor the status of the resources of the Austin Bluffs Open Space (see monitoring recommendations in the *Resource Management* section).

2. Guide priorities (see management action recommendations for each resource in the *Resource Management* section).

3. Understand the specific resources of the Austin Bluffs Open Space (see the *Resource Management* section).

4. Understand the overall goals for Austin Bluffs Open Space and ensure that all actions support those goals.

The Planning Process

The planning process for Austin Bluffs (University Park) Open Space took place during the University Park Subdivision Master Plan review. The Master Plan was approved by the Parks and Recreation Advisory Board, City Planning Commission and City Council. All of the proposed trails, trailheads and ancillary facilities are shown on that Master Plan. The primary trails consist of a multi-use linking Palmer Park to the Pikes Peak Greenway. This trail will be a Tier II paved trail traversing east/west through the Open Space. A Tier III trail entering from Austin Bluffs Parkway and Union Boulevard will connect to the Tier II trail. Other trail opportunities planned will be connections from the neighborhood through predetermined tracts shown on the University Park Master Plan. Trailheads will be located adjacent to the Colorado Springs Utilities storage tank on the south and adjacent to the neighborhood park in the central area of the subdivision.

Plan Guidance

The City of Colorado Springs has established policies and plans that provide guidance on open space acquisition, management and planning. These policies and plans were used to shape the Management Plan. Policies and goals relative to the visual environment, open space and natural resources translate into specific management actions. The *Colorado Springs Open Space Plan, Parks, Recreation and Trails Master Plan* and the *TOPS Policies and Procedures Manual* are the principle planning documents that provide guidance for this Management Plan.

EXISTING CONDITIONS

The University Park (Austin Bluffs) Open Space Baseline Inventory provides the physical foundation for the Austin Bluffs Open Space Management Plan. This baseline study was prepared by Charity Hall in October, 2000. This inventory identified the conservation values and management issues of the property.

Conservation Values

Open Space

University Park (Open Space) is surrounded by additional open space and forms a link between Austin Bluffs and Pulpit Rock Open Spaces (all areas renamed to Austin Bluffs Open Space), creating 523 acres of contiguous open space. Pulpit Rock lies to the northwest and Austin Bluffs to the southeast. Given the location of this large area of open space in an otherwise urban/suburban setting within the incorporated Colorado Springs city limits, this consolidated open space is highly valuable as a buffer, scenic resource, public recreation resource and as a wildlife refuge.

The location of Austin Bluffs Open Space near a developed setting increases its importance as a scenic area and as a buffer. The City of Colorado Springs Planning Department ranked the area where University Park (Open Space) is located as having especially high visibility with a unique visual quality (Colorado Springs Open Space Plan).

If development had occurred within Austin Bluffs Open Space, the surrounding regional parks would have been adversely affected by habitat fragmentation. The connection that Austin Bluffs Open Space creates increases the regional open space value because it serves as a buffer from the outlying developments.

Significant Natural Habitat

Austin Bluffs Open Space contains bluffs, mesas and valleys which support native vegetation communities and wildlife species. Most of the property is dominated by mixed shrub communities and tallgrass meadows; there are also some Ponderosa Pine forests at the property edges as well as on neighboring open space lands. The tallgrass prairie is deemed to be a significant habitat by the Colorado Natural Heritage Program. This community type is relatively uncommon on both a state and local scale.

Public Recreation and Education

Austin Bluffs Open Space is open to the public for passive recreation and trail use for activities such as hiking, running, horseback riding and bicycling. Open Space users are attracted by the unique rock formations, native vegetation and wildlife viewing opportunities.

The Open Space has also been used for education purposes. Geology and other natural science departments from the University of Colorado at Colorado Springs use Austin Bluffs Open Space, which borders property owned by the University. The classes conduct field studies on the various resources of the area. In addition, school children from surrounding areas visit the Open Space to learn about its natural features.

RESOURCE MANAGEMENT

Ecological Landscape and Preservation

One of the major goals of the TOPS program is to protect fragile ecosystems that support biodiversity. In the context of biodiversity, there are five levels of organization commonly considered: genetic, species, community, ecosystem and landscape (Noss and Cooperrider 1994). Austin Bluffs Open Space is located among the mesas at the western edge of the Great Plains. The property lies in a valley with adjacent slopes to the north, east and south. Along the northern perimeter of the 64-acre parcel, bluff formations are present. The bluffs formation consists of sandstone rock outcroppings.

Austin Bluffs Open Space provides an important refuge from outlying developments for a variety of native wildlife. Mule deer, cottontail rabbits and Eastern fox squirrels are all common sightings on the property and in the neighboring open spaces. Birds are abundant throughout the area.

Vegetation

Tallgrass prairie meadows are the dominant meadows on the property. Big Bluestem and Prairie Sandreed are the two dominant species. The meadows are important hunting grounds for raptors, such as red-tailed hawks. Evidence of browsing by deer is also present in some areas.

Native shrublands are dominated by Gambel Oak (*Quercus gambelli*) and Skunkbrush (*Rhus aromatica*). In mesic areas, especially along drainage corridors, Chokecherry (*Prunus virginiana*) is also a common shrub species. The understory consists of a variety of grasses and forbs. Common shade-tolerant understory species include Muhly (*Muhlenbergia montana*) and Little Ricegrass (*Oryzopsis micrantha*). Ponderosa Pine and Gambel Oak occur together in a number of areas on Austin Bluffs Open Space.

Tree species include Ponderosa Pine (*pinus ponderosa)*, Juniper (*juniperus scopulorum)* and Pinon Pine (*pinus edulas).* In the drainages, Cottonwood trees (*populas deltoides)* and Siberian Elm (*ulmus pumila)* are present.

Forest Management

Dwarf Mistletoe

Dwarf mistletoe (*Arceuthobium* spp) is present in ponderosa pine, especially in the southwest part of the open space. Damage includes growth reduction, poor tree form, predisposition to insect infestation and diseases, premature death, and reduction in seed production. Numerous dead and dying ponderosa pine weakened by drought and dwarf mistletoe are visible in the south and west quadrants. Long-term management options are possible, such as mapping dwarf mistletoe-free areas, creating buffer zones, and selective removal and pruning of affected trees, but may not be economically feasible or desirable. One-seed juniper is replacing the ponderosa pine killed by dwarf mistletoe.

Wildland/Urban Interface

Residential areas border the open space on the north, east, and south perimeter.
Typically, dense stands of ponderosa pine, juniper, or gambel oak border residential lots. City Forestry has received numerous calls for fuel wood mitigation from citizens whose backyards border the open space. The Colorado Springs Fire Department and Parks, Recreation, and Cultural Services must educate adjacent property owners about living in the wildland/urban interface.

Thinning and Stand Improvement

Because of fire suppression, ponderosa pine stands along the east and south perimeters are dense and understories of gambel oak and juniper occur. Thinning would increase the health of the forest and reduce fuel loading. Access for equipment is an issue, but grubbed areas where sewer pipe was placed may allow access.

A detailed Forest Health Management plan should be performed to guide management decisions.

Noxious Weeds

Noxious weeds threaten native plant communities by displacing desirable native species. Alien plants that are highly invasive usually do not have natural pathogens and predators to keep their population under control. Some non-natives, like diffuse knapweed contain allelopathic chemicals, which can suppress the growth of other species and allow diffuse knapweed to grow in single-species stands.

Integrated Weed Management

The Colorado Weed Management Act of 1990 identifies both statewide and countywide noxious weeds and obligates all Colorado counties to use Integrated Weed Management techniques for control. When used together, these techniques are the least harmful and most beneficial methods for weed control.

The TOPS program accomplishes noxious weed control through the Parks, Recreation and Cultural Services Department, which uses an integrated pest management approach to weed control.

The most important part of a noxious weed management program is prevention. Utility construction that occurred near the property could have contributed to the sudden presence of noxious weeds. These areas should be surveyed annually and any noxious weeds removed before they become well established. Adjacent property should also be surveyed and notification made to the appropriate landowner or managers about the problem.

Prevention will have the most significant long-term benefit for Austin Bluffs Open Space and surrounding areas. Vigorous and consistent prevention reduces the opportunities for dispersal of noxious weeds, which in turn, minimizes the need for future control actions.

There are scattered patches of Canada and Musk thistles (*Cirsium arvense* and *Carduus nutans),* which are both listed by El Paso County and the State of Colorado as noxious weeds. In some minor drainages along the eastern half of the larger parcel as well as in some of the mesic tallgrass prairies, Yellow toadflax (*Linaria vulgaris)*, a state-listed noxious weed, is present.

There are a few other non-native species that occur on the property, but which are not listed as noxious weeds. White Sweet Clover (*Melilotus albus)* is the most common, occurring in dense patches along the utility easement. White Sweet Clover is a non-native species, which has been planted in a number of areas throughout the state for forage and erosion control. Given the location of the White Sweet Clover population alongside the easement, this species may be assisting in stabilizing the soil beside the easement, which could potentially act as an artificial drainage path. However, its abundance should be monitored to ensure that it does not encroach on areas with native vegetation.

Wildlife

Austin Bluffs Open Space provides an important refuge from outlying developments for a variety of native wildlife. In addition to Mule Deer, Cottontail rabbits, Eastern Fox squirrels, and birds are abundant throughout the property and neighboring open spaces. Some of the more common occurrences include northern flickers, black-capped chickades, crow, ravens, mourning doves, magpies, mountain bluebirds and broad-tailed hummingbirds. Hawks are occasionally visible soaring over the open space areas. Due to the possibility of nesting migratory birds, a bird survey should be conducted prior to the construction of trails and trailheads.

Visitor Use

Visitor use opportunities in the Austin Bluffs Open Space will be somewhat limited. Two multi-use trails, neighborhood trail connections and nature interpretation will be the primary opportunities. Appropriate facilities should be provided for these uses and should not affect the conservation values of the property

Visual Resources

The scenic aspect of the Austin Bluffs Open Space is of the highest quality. The unique rock formations, scenic bluffs, mesas, valleys, and foothills pine and shrub forest all make this area very scenic and provide wildlife viewing and a visual relief in the heart of the city.

Bluffs formations enhance the scenic value of the Austin Bluffs Open Space. Bluffs refer to the large standing columns of coarse-grained sandstone, which are present throughout the open space. The bluffs are slowly and naturally eroding, forming slopes characterized by bedrock overlain by a thin layer of loose sand. Ponderosa pines, Gambel oak and grasses may be found on these slopes.

The park is located on two rock formation units. One is a group of formations dating back to the Eocene period of the Tertiary, and includes the Denver formation, the Arapahoe formation and Dawson arkose. These formations occur unseparated in the region.

MANAGEMENT ZONES

The balance between visitor use and resource protection is always the challenge in resource management. There are areas of the open space that will need to be managed differently and allow for resource protection and visitor use. The management zones significant factors include:

- Rock Formations and cliffs
- Riparian areas
- Grassland areas
- Forest areas

Sensitive Natural Resource Zone

The Sensitive Natural Resources Zone includes the majority of the property because of the fragile rock formations and riparian areas. The grasslands and forest areas are not as sensitive but are still included because of the wildlife habitat. The following prioritized list is designed to guide the Parks, Recreation and Cultural Services Department in the maintenance and stewardship of the property.

Table 1. Individual resources and management priority within Sensitive Natural Resources Zone

Natural Resource	Priority
Rock formations and cliffs	High
Riparian areas	Medium
Grassland areas	Medium
Forest areas	Highest

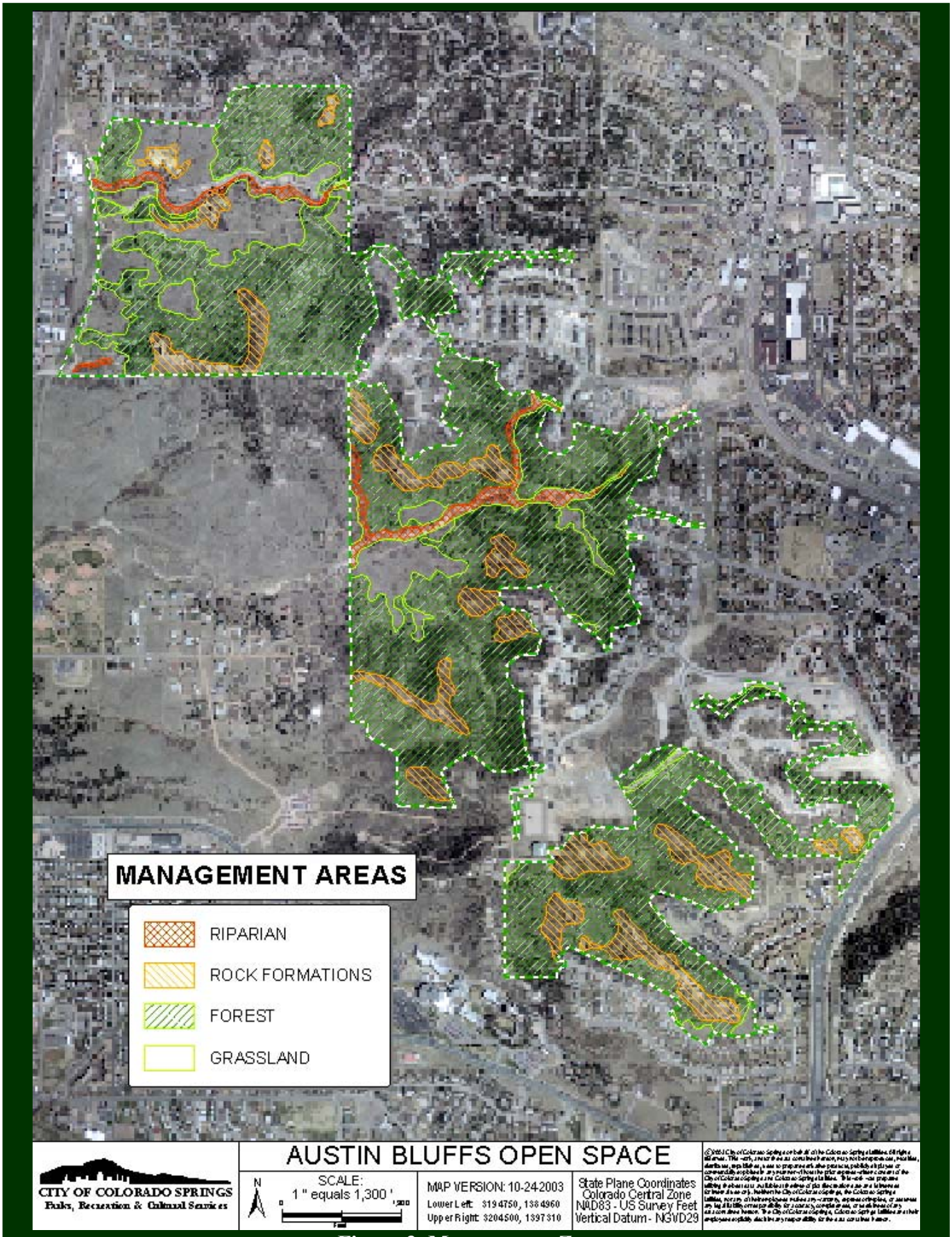


Figure 3. Management Zones

PLAN IMPLEMENTATION

Identification and prioritization of management actions will be required to implement the plan and accomplish management objectives and plan goals. These prioritized management actions should be reviewed on an annual basis to determine annual work programs given budget and staff constraints. Implementation of the Austin Bluffs Open Space Management Plan also needs to be balanced with other resource needs throughout the open space system. Many of the management actions will be implemented within the first few years of approval of the Plan, while others will take many years to accomplish. Some management actions are ongoing, some are short term, and others are long term, representing considerable investments of time and energy.

Table 2 is a prioritized summary of management actions. The summary is derived from all the individual resource goals, objectives and recommended management actions in the body of the Plan. The table is arranged by individual resource section. Column one summarizes the management goals, objectives and recommended actions. The second column describes timing or how long it will take to accomplish an action:

- **Short-term actions (S)** should take less than one year to accomplish.
- **Long-term actions (L)** will take more than one year once they have been started.
- **Ongoing actions (O)** may involve considerable time and energy and will continue indefinitely over time.

The third column prioritizes specific management actions. Management actions have been evaluated and prioritized according to "high," "medium," and "low" in Table 2. Criteria for prioritization include the urgency, importance and relationship of each action to other resource goals, objectives and actions. Other considerations include community need, legal requirements, budget and personnel.

- **High priority actions (1)** should be accomplished first. These management actions are considered extremely important to the protection of the conservation values of Austin Bluffs Open Space. High priority actions are directly related to the accomplishment of other resource objectives and goals.
- **Medium priority actions (2)** are considered important, but not urgent, and meet a combination of other resource goals and objectives.
- **Low priority actions (3)** management actions are important, but not critical to resource protection needs. Low priority management actions do not have to be completed in the immediate future and primarily fulfill a specific resource goal or objective.

Table 2. Summary of Management Recommendations

MANAGEMENT GOALS, OBJECTIVES, AND ACTIONS	TIMING	PRIORITY
Vegetation Goal: Protect and enhance native vegetation and restore degraded plant communities on the property		
Objective 1: Implement a preservation and management strategy		
• Action: Use a no action approach in the short term (2003-2004)	S	1
• Action: Map noxious weed infestations and identify areas of concern on adjacent properties.	S	1
• Action: Utilize a forest management plan to control mistletoe and insect pests, etc.	O	1

Objective 2: Plan trails to minimize the risk of weed infestation and habitat loss		
• Action: Do not place new trails in areas with existing weed infestations.	S	2
• Action: Avoid creating a trail corridor that links a weed infested area with an area of little or no weed infestation.	S	2
• Action: Place any trails near habitat edges to limit the fragmentation of large blocks of habitat.	S	3

Objective 3: Implement trail construction and maintenance with a weed strategy.		
• Action: Reclaim disturbed areas immediately to reduce chance of weed infestation.	S	2
• Action: Minimize ground disturbance and soil compaction resulting from construction and maintenance activities.	O	2
• Action: Use weed free materials in trail construction and maintenance	O	1
• Action: Clean all equipment used in trail construction and maintenance before using on a new project.	O	1
S: Short-term; L: Long-term; O: Ongoing; 1: High priority; 2: Medium priority; 3: Low priority		

Objective 4: Educate staff members, adjacent landowners and visitors about open space preservation and noxious weed control.		
• Action: Develop an outreach program to assist adjacent homeowners with appropriate landscaping in relation to the open space interface	O	3
• Action: Explore research opportunities in relation to preservation of the open space. The proximity to the University of Colorado at Colorado Springs may provide opportunities for students.	O	3

Wildlife Goal: Protect wildlife habitat and movement corridors		
Objective 1: Inventory wildlife populations that use the property and monitor changes in their frequency, distribution and behavior.		
• Action: Coordinate wildlife surveys and studies with other agencies to share information and efforts.	O	2
• Action: Integrate sensitive wildlife habitat in all management actions	O	1

Objective 2: Protect or enhance important wild habitat on the open space.		
• Action: Identify wildlife enhancement needs and opportunities	O	3
• Action: Restore native plant communities where necessary	O	2
• Action: Provide for wildlife corridor enhancement	O	2
• Action: Remove any internal fencing that might hinder wildlife movement.	S	2

Objective 3: Coordinate wildlife management and habitat conservation projects with neighboring landowners and other resource management agencies.		
• Action: Conduct outreach activities with landowners that address the potential conflict between domestic pets and wildlife.	O	3
• Action: Continue discussions with adjacent landowners regarding conservation and trail easements	O	3
S: Short-term; L: Long-term; O: Ongoing; 1: High priority; 2: Medium priority; 3: Low priority		

Historical and Cultural Resource Goal Provide quality educational experiences through interpretive programs.		
Objective 1: Present and interpret cultural and historical resources.		
• Action: Develop an interpretive plan for the property that considers significant cultural and historical features such as ranching and grazing.	L	3

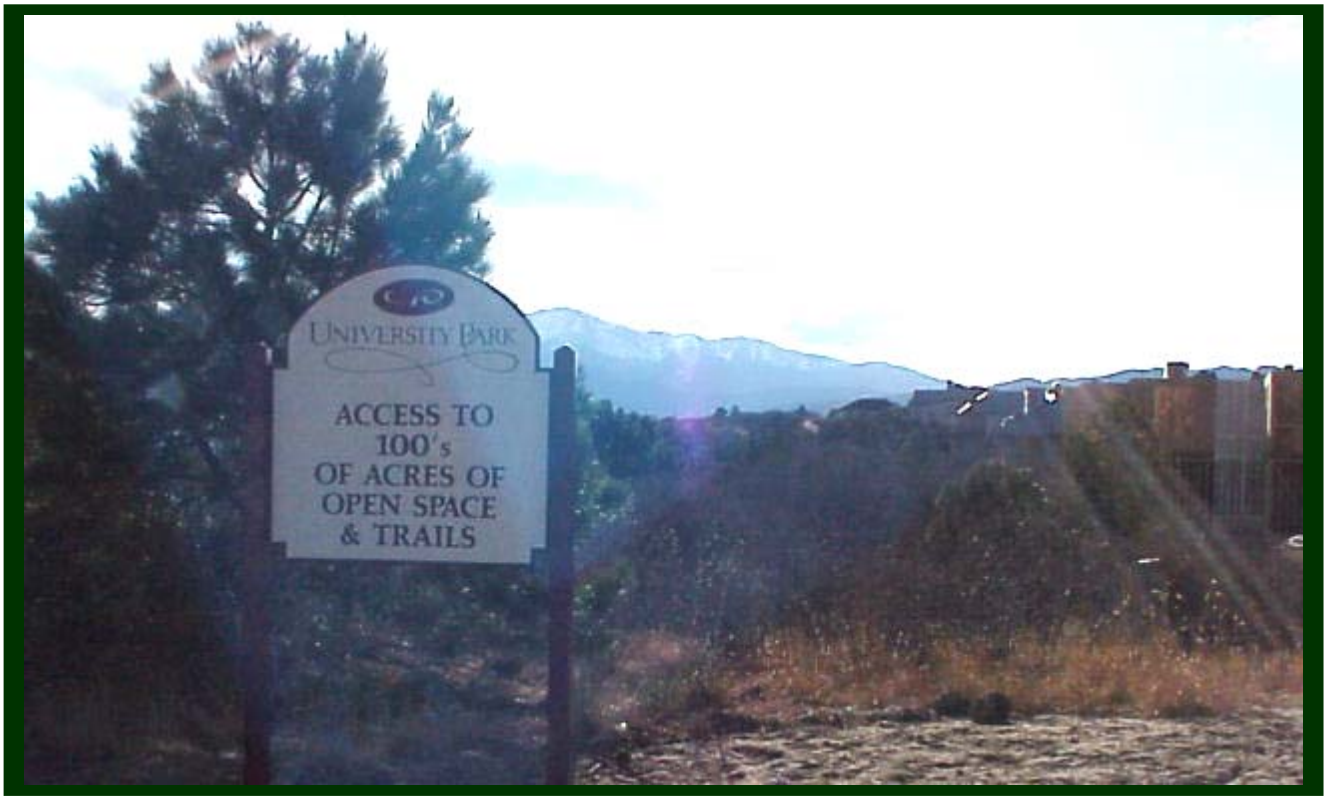
• Action: Collaborate with the Cultural Resources Division to develop an interpretive plan that considers wildlife and historical uses of the property.	L	3

Visitor Use Goal		
Objective 1: Provide appropriate recreational facilities.		
• Action: Establish a trail system in accordance with the Austin Bluffs Open Space Master Plan and the City Multi-Use Trail Plan	S	1
• Action: Construct parking lots or trailheads in areas designated on the Austin Bluffs Open Space Master Plan.	S	1

Objective 2: Preserve scenic values of the property.		
• Action: Use existing roads or utility easements wherever possible. Some trails should utilize social trail corridors also.	S	2
• Action: Design parking lots and visitor facilities to minimize the visual impact to the open space.	S	2

Objective 3: Discourage vandalism and other undesirable impacts to the property.		
• Action: Make arrangements for the law enforcement to drive by the trailheads on a regular basis.	O	!
• Action: Construct signage in accordance with the Parks, Recreation and Cultural Services Department Sign Policy.	S	3
• Action: Consider creating a neighborhood watch group and Adopt a Park group to monitor use and trash control.	O	2

Objective 4: Minimize conflicts with recreational users.		
• Action: Promote trail etiquette through educational programs, signs, brochures outreach with user groups, field contacts and volunteer programs	O	3
• Action: Encourage the use of designated trail and access points. Use signs, trail maps and educational materials to encourage appropriate visitor use.	O	3
S: Short-term; L: Long-term; O: Ongoing; 1: High priority; 2: Medium priority; 3: Low priority		



MONITORING

Resource monitoring is performed to determine how well management objectives and goals are met. Monitoring becomes a key element in order to measure success and provides a feedback mechanism for decision-making that keeps the plan active and sustainable. Monitoring provides information on what changes are occurring on the Austin Bluffs Open Space. Some resources may be adversely affected resulting in a change in management techniques. Monitoring should also influence access and recreation management. Techniques for monitoring the overall landscape include photo monitoring, vegetation and landscape mapping and wildlife and field surveys.

The monitoring of specific resources should be performed on a periodic basis. Some monitoring actions are ongoing and occur through standard patrol activities. Others need to be scheduled several times a year, annually or every five years. Other monitoring activities may be triggered by particular events or management actions. Table 3 is a summary of resource monitoring actions included in the Plan and a general resource monitoring schedule including frequency and methods.

Table 3. Summary of Resource Monitoring Actions and General Monitoring Schedule

Monitoring Actions	Frequency	How
Vegetation Monitoring		
• Action: Photos should be taken of known weed infestations and compared annually to track success of control efforts	Every 3 years	Photos
• Action: Recreation trails should be surveyed for weed infestations	Annually	Visual inspection
Wildlife Monitoring		
• Action: Monitor the status of wildlife habitat	Annually	Visual inspection
• Action: Survey the open space for signs of predation by domestic pets	Annually	Visual inspection
Historic and Cultural Resources		
• Action: There are no recommended monitoring actions for historic and cultural resources on the Austin Bluffs Open Space	Not applicable	Not applicable
Visitor Use Monitoring		
• Action: Monitor existing access points for problems such as social trails, capacity at trail heads, parking in neighborhoods for accessing trails, and vandalism.	Annually	Visual inspection
• Action: Monitor visitor use and evaluate recreational impacts to vegetation, wildlife and visual resources.	Annually	Visual inspection

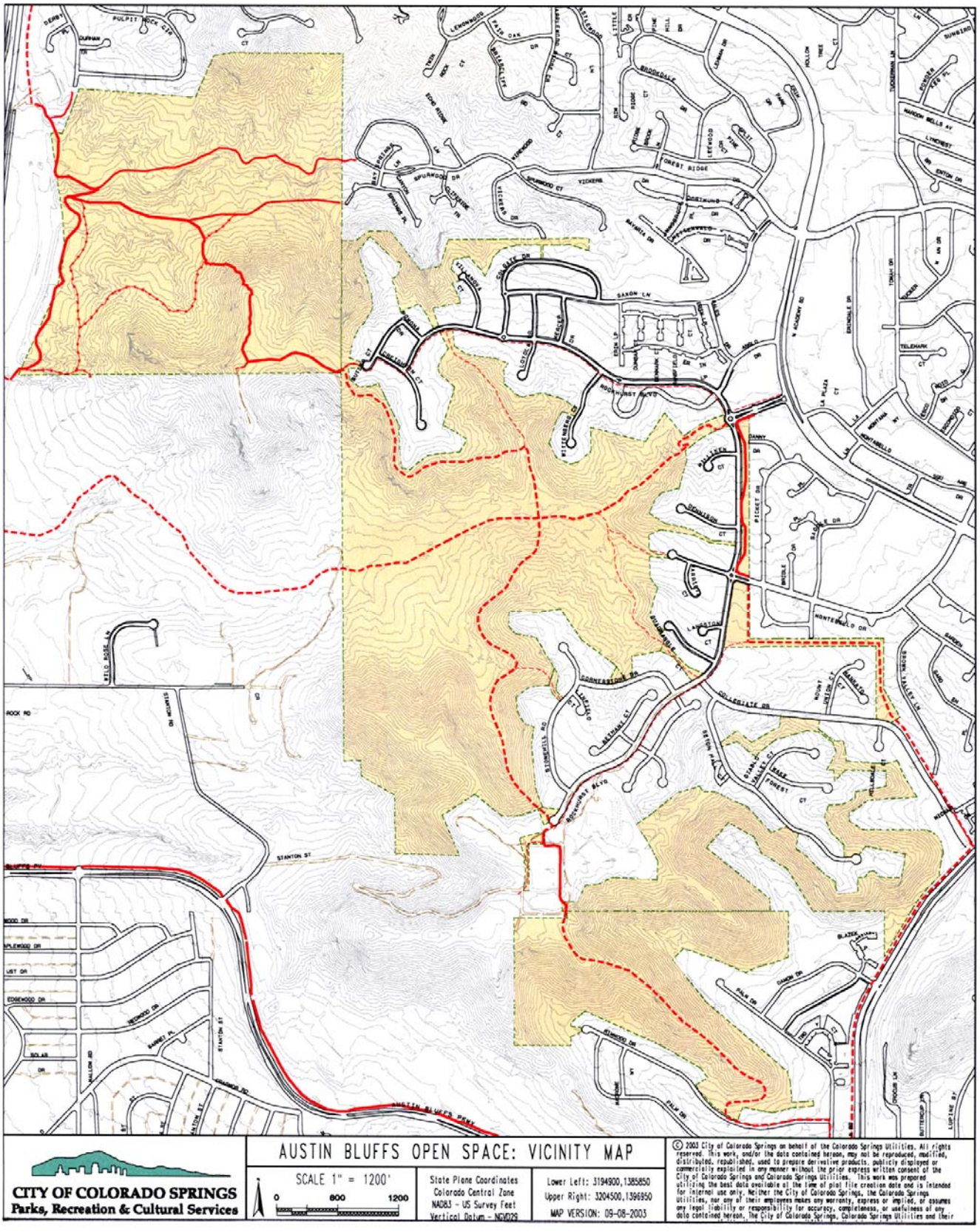


Figure 4. Austin Bluffs Open Space Map